SECTION 01 31 14

COORDINATION, PUBLIC NOTIFICATION, AND PROJECT REQUIREMENTS

PART 1 - GENERAL

1.1 PROJECT COORDINATION

A. Coordinate scheduling, submittals and work of various Sections of the Specifications and subcontractors to assure efficient and orderly sequence of interdependent construction.

1.2 CUTTING, FITTING, AND PATCHING

A. Provide cutting, fitting, or patching required to complete the Work and to make all of its parts fit together properly. Include cutting, fitting, and patching required to:
   1. Fit the several parts together and to integrate with other work.
   2. Uncover work to install or correct ill-timed work.
   3. Remove and replace defective and non-conforming work.

B. Request guidance from the Engineer prior to beginning cutting or altering construction, which affects:
   1. Structural integrity of any element.
   2. Functional performance of any element.
   3. Integrity of weather-exposed or moisture-resistant elements.
   4. Efficiency, maintenance, or safety of elements.

C. Execute cutting and patching using workers that specialize in and are skilled in installing the type of work being cut or patched.

D. Perform work in accordance with the Contract Documents or in the absence of specific requirements comply with best trade practice for the work involved.
   1. Execute work by methods that will avoid damage to other work.
   2. Provide proper support and substrates to receive patching and finishing materials.
   3. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection.
   4. Report any hazardous or unsatisfactory conditions to the Engineer.

1.3 ALTERATION PROJECT PROCEDURES

A. Plan, schedule and perform alteration work as required to minimize impacting the Owner's continued operations.

B. The existing sewer lines must remain in operation during construction.

C. Perform cutting, fitting and patching in accordance with provisions in other paragraphs of this Section. Where new work abuts or aligns with existing work

perform a smooth even transition. When a smooth unnoticeable transition is not feasible cut existing surfaces along a straight line at a natural dividing point and provide a groove or cover plate as recommended by the Engineer.

D. Provide new construction in accordance with the technical specifications or if not specified provide new construction matching adjacent or similar existing work in material and finish.

1.4 CONNECTIONS TO UNDERGROUND UTILITIES, CONDUITS, OR PROCESS PIPING

A. Obtain best available current information on location, identification and marking of existing utilities, piping and conduits and other underground facilities before beginning any excavation. In areas where utilities that participate in Underground Service Alert may occur, call 800-642-2444 in Northern California for information at least 48 hours in advance of beginning work. Give Engineer 24 hours notice before beginning work.

B. The location of existing utilities and underground facilities known to the Design Engineer are shown in their approximate location based on information available at the time of preparing the Drawings. Individual house services for gas and sewer are not shown. The actual location, size type and number of utilities and underground facilities may differ from that shown and utilities or underground facilities may be present that are not shown.

C. Use extreme care when excavating or working in areas that may contain existing utilities, process piping, conduits or other underground facilities. Use careful potholing, hand digging and probing to determine the exact location of underground installation. Some locations contain multiple pipes or conduits. Prior to performing any subsurface work, investigate, determine and prepare a plan to turn off or disconnect each utility believed to be in the within 100 feet of the subsurface work in the event of an accidental breach of a utility conduit.

D. Where connections to existing utilities or other underground facilities is required or where new piping or conduits may cross or interfere with existing utilities or underground facilities carefully excavate and uncover existing installations to a point 1 foot below the pipe or conduit to determine the actual elevation and alignment. Call the Engineer's attention to differing existing conditions that may require a clarification or change.

E. The Contractor shall notify all owners of utilities when its work is in progress and shall make arrangements as are necessary to make any emergency repairs. Should any damage to a utility occur during the progress of the work, the Contractor shall notify the owner of the utility at once and render every assistance possible to repair the damage and restore service. No extra compensation will be made for the repair of any services or utility damaged by the Contractor nor for any damage incurred through neglect or failure to provide adequate protection to existing utilities. This provision exists even in the event that a utility or service is damaged after backfilling or is not discovered until after completion of the backfilling.

F. All utilities encountered during the Work shall remain in continual service under the Contract, unless otherwise noted on the drawings, or unless the Engineer and owner of the said utility are in agreement to shutdown the said utility.

1.5 FIELD ENGINEERING AND LAYOUT

A. The Owner will establish reference benchmarks. Base lines shall be set by Contractor to locate new sewer line in relationship to existing as shown on Plans for this Contract. The Contractor shall develop and make additional surveys as needed for construction, such as control lines, stakes for pipe locations and other working points, lines, and elevations. Survey work shall be performed under the supervision of a licensed land surveyor or registered civil engineer. The Contractor shall protect reference points provided by the Owner and shall reset any that are damaged or destroyed by his operation at no cost to the Owner.

B. The Contractor shall lay out the Work from the reference points provided and shall be responsible for accurate location, alignment, elevation and level of the completed Work.

C. Employ a Professional Land Surveyor or Professional Civil Engineer to establish and verify the elevation of all elements affecting the hydraulic gradient of the system including the inverts of all manholes and piping. Use recognized engineering surveying methods and documentation techniques.

1.6 PRECONSTRUCTION MEETINGS

A. Prior to beginning the Work, the Contractor and its key personnel and Subcontractors including the Contractor's Superintendent, Project Manager, and Field Engineer shall attend a meeting with the Owner and the Engineer to discuss the following:
   1. Name, Authority, and Responsibilities of Parties Involved
   2. Project Procedures:
      a. Progress meetings
      b. Correspondence
      c. Notification
      d. Submittal of Product Data, Shop Drawing Samples, and Proposed Equivalents
      e. Requests for Information
      f. Response to Requests for Information
      g. Requests for Quotation
      h. Work Directive Change
      i. Change Orders
      j. Engineer's "Items of Concern List"
   3. Temporary Schedule and Contractor's Construction Schedule
   4. Testing During Construction
   5. Contractors Coordination
   6. Facilities and Temporary Controls
   7. Maintenance of Record Drawings

8. Final Review of Manholes and Television Inspection of Sewer Line
9. Punch Lists and Project Closeout Procedures
10. Final Deliverables including Record Drawings, Television Logs, and Special Guarantees.

1.7 PROGRESS MEETINGS

A. The Engineer will conduct weekly progress meetings with Contractor and the Owner at job site. Attendance required by Contractor's project manager, superintendent and affected Subcontractors and suppliers. The Engineer will prepare, maintain and distribute agenda and dated record of: (1) actions required and taken and (2) decisions needed and made.

B. Agenda:
   1. Review critical items/action list.
   2. Review work progress. Compare actual and projected progress with Contractor's Construction Schedule. Propose methods to correct deficiencies.
   3. Review status of Submittals; review delivery dates and date of need for critical items.
   4. Review coordination problems.
   5. Schedule needed testing and critical inspections.
   6. Review critical requirements for each trade or major piece of equipment prior to beginning work or installation.
   7. Discuss Contractor Quality Control.
   8. Discuss open items on Engineers "Items of Concern List."
   9. Discuss impact of proposed changes on progress Schedule.
   10. Other business.

1.8 MATERIAL AND EQUIPMENT

A. General:
   1. Verify that products delivered meet requirements of Contract Documents and the requirements for Favorably Reviewed submittals.

B. Compatibility of Equipment and Material:
   1. Similar items, equipment, devices or products furnished under a single specification section shall all be made by the same maker and have interchangeable parts.
   2. In addition, but only if so stated in each affected Specification Section, similar items furnished under two or more Specification Sections shall be made by the same maker and have interchangeable parts.
   3. All similar materials or products that are interrelated or used together in an assembly shall be compatible with each other.

C. Transportation and Handling:
   1. Transport and handle products in accordance with manufacturer's instructions.
   2. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

3. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

D. Storage and Protection:
   1. Store and protect products in accordance with manufacturer's instructions. Seals and labels shall be intact and legible.
   2. For exterior storage of fabricated products, place items on sloped supports, aboveground.
   3. Cover products subject to deterioration from moisture, dust, or sunlight with opaque watertight but breathable sheet covering. Provide ventilation to avoid condensation.
   4. Provide offsite storage and protection including insurance coverage when site does not permit onsite storage or protection.
   5. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
   6. Provide facilities, equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
   7. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

E. Installation Standards and Manufacturers' Recommendations:
   1. Install all products and materials in strict compliance with the most restrictive of the following:
      a. The manufacturer's or provider's written instructions or recommendations. Follow step-by-step installation procedures.
      b. Recommendations of referenced trade associations or standards.
      c. These specifications and drawings.
   2. Where conflicts exist present alternatives with advantages and disadvantages to Engineer for decision.

F. If reference standards or manufacturer's instructions contain provisions that would alter or are at variance with relationships between the parties to the Contract set forth in the Contract Documents, the provisions in the Contract Documents shall take precedence.

1.9 SEISMIC REQUIREMENTS

A. The Contractor is responsible for producing designs that resist the total seismic forces in accordance with the design criteria.

B. For items listed below, the Contractor is responsible for submitting signed and sealed structural calculations and detailed drawings from a Specialty Structural or Civil Engineer licensed in the State where the project is being built for the attachments for permanent equipment supported by the structure demonstrating that the design is capable of resisting the total seismic forces in accordance with the seismic design criteria.
   1. The Contractor is responsible for coordinating between the Engineer of Record and the Specialty Engineer.
   2. The Specialty Engineer shall be responsible for the following:

a. Equipment anchorage including pumps and electrical panels.
b. Pipe and conduit supports not detailed on the drawings.

C. Total seismic forces shall be determined in accordance with the seismic design requirements for non-structural components and equipment included in the California adopted and amended versions of IBC (Chapter 16) and the coefficients and factors for determining the total design seismic forces as follows:
1. Occupancy Category = III
2. Seismic Design Category = D
3. Site Class = D
4. Spectral Response Acceleration at Short Period, S_{DS} = 1.434
5. Component Importance Factor, I_P = 1.0
6. Components Coefficient, a_P, in accordance with ASCE 7-05, Table 13.6-1
7. Components Coefficient, R_P, in accordance with ASCE 7-05, Table 13.6-1

D. Non-structural components and equipment shall include the following items:
1. Mechanical, electrical, and plumbing equipment and appurtenances.
2. Conduit, piping, cable trays, raceways, ducts and similar systems.

E. Quality Assurance Submittals:
1. Where required in the equipment specifications in Divisions 2 through 17, submit certification that the equipment itself is designed to resist all internal seismic forces based on the seismic design criteria for the project.
2. Where required in Paragraph B. above and in the the equipment specifications in Divisions 2 through 17, submit signed and sealed structural calculations and detailed drawings from a specialty Structural or Civil Engineer, licensed in the state where the project is being built for the attachments and anchorage to the structure.
3. Where required in the equipment specifications in Divisions 2 through 17, submit certification that the attachments and anchorage are designed to resist all seismic forces based on the design criteria for this project.

1.10 SAFETY

A. In accordance with generally accepted construction practice and applicable law the Contractor shall be solely and exclusively responsible for:
1. Construction means and methods.
2. Safety of employees engaged in the work while on and off the site.
3. Safety of the Owner, the Engineer, the Design Engineer, and others who may visit or be affected by the work.
4. Safety of the work itself including material and equipment to be incorporated therein.
5. Safety of other property at the site or adjacent thereto.
6. Safety programs, equipment and protective devices required to assure the safety of persons and property for whom/which the Contractor is responsible.

B. The duties of the Engineer in conducting review of the Contractor's performance is not intended to include review of the adequacy of the

Contractor's work methods, equipment, bracing, scaffolding or safety measures in, on, or near the construction site.

C. The Contractor is hereby informed that work on this project could be hazardous. The Contractor shall carefully instruct all personnel working in potentially hazardous work areas as to potential dangers and shall provide such necessary safety equipment and instructions as required to prevent injury to personnel and damage to property, and to comply with all applicable laws and regulations including State OSHA, Federal OSHA, and other regulations referenced in these Contract Documents.

D. The Contractor shall, at all times, maintain the job in a condition that is safe for the Owner, the Engineer and their Consultants to make site visits and to conduct construction reviews. If the Owner or the Engineer cannot allow personnel to visit the job because it is not safe, the Contractor is not providing required safe access to the Work.

E. The Contractor shall prepare a Safety Plan meeting the requirements of applicable regulations. As a minimum, the Contractors Safety Plan shall set forth definite procedures for informing workers about safety, for instructing workers in safe practices, for assuring that workers are using appropriate safety equipment and safe work practices and for reporting accidents.

1.11 EXCAVATION AND TRENCHING; WORK WITHIN CONFINED SPACES

A. Submit specific plans to the Owner showing details of provisions for worker protection from caving ground in accordance with Section 6705 of the California State Labor Code. The detailed plans shall show the design of shoring, bracing, sloping banks or other provisions and shall be prepared, signed and stamped by a Civil or Structural Engineer licensed in the State in which the Work is performed and retained by the Contractor. The Owner's acceptance of the detailed plans submitted is only an acknowledgment of the submission and does not constitute review or approval of the designs, design assumptions, criteria, completeness, applicability to areas of intended use, or implementation of the plans, which are solely the responsibility of the Contractor and its Registered Engineer.

B. Work Within Confined Spaces: Work within confined spaces is subject to applicable laws, regulations and safety orders including applicable regulations.

C. The foregoing provisions do NOT reduce the requirement for the Contractor to maintain safety in ALL operations performed by the Contractor or its Subcontractors.

1.12 CONTRACTOR'S QUALITY CONTROL

A. The Contractor shall be fully responsible for inspecting the work of its suppliers and Subcontractors to assure that the work when completed will comply with the standards for materials and workmanship required by the Contract Documents.

B. Inspections, periodic observations and testing performed by the Owner or the Engineer are for the Owner's benefit and information only and shall not be construed as partial or incremental acceptance of the work and shall not be deemed to establish any duty on the part of the Owner or the Engineer to the Contractor, its subcontractors or suppliers.

C. The Contractor shall:
   1. Monitor quality control over suppliers, manufacturer, products, services, site conditions, and workmanship, to produce work of specified quality.
   2. Comply fully with manufacturer's installation instructions, including performing each step in sequence as recommended by the manufacturer.
   3. Submit a Request for Information to Engineer before proceeding with work when manufacturers' instructions or reference standards conflict with Contract Documents.
   4. Comply with specified standards as a minimum quality for the work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
   5. Perform work by persons specializing in the specific trade and class of work required and qualified to produce workmanship of specified quality.
   6. Secure products in place with positive anchorage devices designed and sized to withstand seismic, static and dynamic loading, vibration, and physical distortion or disfigurement.

D. If reference standards or manufacturers' instructions contain provisions that would alter or are at variance with relationships between the parties to the Contract set forth in the Contract Documents, the provisions in the Contract Documents shall take precedence.

E. The Contractor shall provide assistance required by the Engineer to adequately inspect the Work including ladders, scaffolding, lighting, ventilation and other aids to facilitate access and provide a safe working environment.

1.13 TESTING LABORATORY SERVICES AND CERTIFIED LABORATORY REPORTS

A. Provide testing service in accordance with specific requirements contained in each technical specification section. Submit Certified Laboratory Reports required by technical specification sections.

1.14 PERMITS

A. The Contractor shall abide by conditions of all permits and shall obtain proof of

satisfaction of conditions from issuers of permits, prior to acceptance of the Work by the City.

B. The Contractor shall obtain the following permits:
   1. Permits for legal disposal of demolition debris and excess materials.
   2. California/OSHA Permit for excavations deeper than five (5) feet.
   3. RWQCB Permit for discharging water from dewatering operations.
   4. City of San Bruno Business License and Encroachment Permit.

1.15 CONVENIENCE AND ACCESS

A. Contractor shall conduct his Work so as to minimize inconvenience to local traffic, residences, etc. The Contractor shall regard the rights of the public by not undertaking more work than he can properly conduct and complete by the end of the day.

B. The Contractor shall provide access to all fire hydrants at all times.

C. Unless the Contractor makes other arrangements with property owners, it shall provide and maintain safe and adequate vehicular access to driveways for residences at all times except when necessary trench excavations preclude such access for reasonable periods of time. The excavated trench shall be backfilled or plated as soon as possible to provide access.

D. The Contractor shall cooperate with the various forces involved in the collection and removal of trash and garbage from residences adjacent to the work, to the extent that the existing schedule for these services can be maintained.

1.16 PRE-CONSTRUCTION/POST-CONSTRUCTION PHOTOGRAPHS

A. The Contractor shall provide pre-construction photographs prior to commencement of work on the site.

B. The photographs shall be digital, color, and shall indicate the date, description of subject, and the location where the photograph was taken.

C. Before construction may begin, a CD shall be burned with all pre-construction photographs and shall be delivered to the City.

D. Pre-construction photographs shall be taken at locations selected by the Contractor, and also as directed by the Engineer. At a minimum photographs will be take at 50-feet intervals with one photo taken up line and the other photo taken down line.

E. The Contractor shall document post-construction conditions by re-photographing the same subjects, from the same locations, as taken for the pre-construction photographs. Contractor shall burn a CD with all post-construction photographs.

1.17 PUBLIC NOTIFICATION

Public notification shall consist of providing project information signs and establishing and implementing a procedure to provide at least two separate written construction notices (handouts and/or mailings) to affected properties, and door-to-door notification as described below. A written Public Notification Plan shall be provided to the Engineer for review prior to implementation and shall include documentation that required noticing has been accomplished.

A. Written Notifications: A copy of all written notices shall be provided to the Engineer for review at least one week prior to handout and/or mailing

1. Notifications shall include the type(s) of work, the period the work will last, parking and any ingress/egress impacts, construction times and dates. Notifications shall also include 24-hour contact information for the Contractor and a contact if residents or businesses have question regarding work or if they have special needs that need to be accommodated.

2. Written notifications shall consist of, at a minimum, a general notice describing the overall project including an outline of the proposed work tasks and a second task-specific notice of the construction that will impact individual residents within the construction area. Should additional tasks impact a property, the Contractor shall provide additional task-specific notice(s) as necessary.

3. The Contractor shall provide the general written notice to all businesses and residents residing on the project streets and all emergency, garbage/recycle collection and transit services at least four (4) working days, but not more than seven (7) working days prior to start of construction on each project street. Work shall be scheduled to avoid interruption of garbage/recycling collection services.

4. The task-specific notices shall be provided to affected residents a minimum of 48 hours prior to the start of the construction task. On the day before work is to begin, the Contractor shall securely attach a door hanger reminding affected residents of the type of work (ie digouts, overlay, slurry seal, etc.), period the specific construction will last, construction time and date of construction, information regarding access to their property and information regarding street closures, parking and/or detours. Any notices remaining on doors the evening of construction completion shall be picked up and disposed of by the Contractor.

5. Failure to comply with the notification requirement will result in a stop work order. The Contractor shall maintain an updated and chronological record at the job site of all written notifications along with a list of recipients. Such records shall be made available upon request by the Engineer.

6. No work shall take place prior to the required notification, re-notification, or coordination work with affected facilities.

B. Project Information Sign: Contractor shall place a 4’x 4’ min. sign facing traffic

on each project roadway at the beginning and end of the project area at least seven (7) days prior to the start of construction. The signs shall be in accordance with City Standard Detail **M-01 "Project Sign Template"**, and shall include the project name, start date, and Contractor Contact Phone Number. Project title shall be 4" min. height and be legible by motorists. All excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes. Construction area signs shall be used at cross streets as needed to notify the public of the construction activities before entering the construction zone. Locations of all signs shall be approved by the Engineer prior to their placement. All signs shall be placed within City's right-of-way. No signs shall be placed in Caltrans right-of-way or private properties.

PART 2 – PRODUCTS
NOT USED

PART 3 – EXECUTION
NOT USED

-END OF SECTION-

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